



IEEE WG 473
IEEE Recommended Practice for an Electromagnetic
Site Survey (10 kHz to 10 GHz)



UNCONFIRMED WG 473 MEETING MINUTES

AUGUST 15, 2001, 13:00 TO 17:00 (1 TO 4 PM)

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| 1. | Welcome and Call to Order..... | Elya Joffe |
| 2. | Round Table Introduction..... | All |

Attendance:

Elya Joffe, KTM, Chair
 Vil Arafiles, Vice Chair and filling in for Secretary
 Don Gilliland, TC3 Chair, IBM Rochester, considering
 Dave Seabury, Chase/IBEX, Safety interest C63.5 WG on Antenna Cal
 Wilf Lauber, CRC Ottawa, TC3, Original drafter
 John Lapore, Member
 Bill Strauss, DoD, Navy, Ph D candidate (will distribute minutes to TC3 members for review/comments)
 Won Kim,
 Bill Croisant, USArmy, Interested party
 Vil Arafiles, DoD, WG Vice Chair, Acting Secretary
 Kimball Williams, VP Tech Services

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| 3. | Approval of Agenda..... | Vil Arafiles |
| | Additions: none | |
| | Revisions: none | |
| | Approved as presented | |

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| 4. | Discussion of schedule..... | Elya Joffe |
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PAR: Standard Activity needs to complete by August 31, 2004. Submit draft to review committee.

Initial submission of initial sponsor ballots March 31, 2002

Meetings:

- a. Internet based meeting area, bulletin board to post ideas.
- Bill: Suggests periodic time to check bulletin board, and post progress.
- Elya: 15th every 2 month even months October, December, Feb, April, June, August.
- Chair/Vice Chair prompt for inputs one week before

- b. Two meetings per year.
- Next meeting: proposed close to 13 Feb EMCS BOD day before (Tempe Arizona), full day meetings close to a

Saturday/weekend.

EMC-S support: **must not be counted on, with regard to travel expenses**, and attendance depends on companies' sponsorship.

5. Setting up working group procedures..... . Elya Joffe

- a. Informal **running of** meetings, but formal approval of actions and balloting
- b. Communication: e-mail. Please respond if only to acknowledge receipt. Bill Croisant agrees. Also, confirm attendance or non-attendance to meetings.
- c. Expand contacts with external/TC3 members.
- d. Web site: POC is Stephen Berger
 - Public Web Page: (action for Elya to investigate)
 - Bulletin Board: password protected. Post common interest issues, sub committee issues Web Page URL-(action Elya to e-mail to members)

6. Discussion of Scope of Revision Elya Joffe

PAR: What must be revised?

- Extend to 40 GHz
- References to modern equipment
- To include time domain measurements of waveforms

Q: What was the original purpose?

Wilf: US Navy has survey procedures for communication sites.
Impact of civic encroachment in communication sites.

Comment: spectrum usage now to 40 GHz

Wilf: Mentioned that the original IEEE STD 473 was written in 1981 and that the work was presented at a TC-3 Workshop at the 1983 Symposium.

Also it is noteworthy that Ed Skomal and Al Smith expanded this Recommended Practice into a book 'Measuring the Radio Frequency Environment' ISBN: 0-442-28184-6, By Van Nostrand in 1985.

This will show to the present committee the limitations of the practice (especially equipment) etc.

Other considerations:

- Structure of Revised Standard
- Relevance of References and available material and resources
- **Study required to investigate** to see if there are newer versions of referenced documents
- Relevance and validity of theoretical data
- Types of detectors, digital vs analog
- Technical scope of Revision
- Add **section** on standard **History**

Inputs and issues from members:

- Analog versus digital detectors
- Test equipment: digital spectrum analyzers, memory, magnetic media
- Time domain measurements
- Specific equipment recommendations is not a good idea, requirements is OK.

Kimball Maybe use key word lists to describe required test equipment.

Bill Croissant: Need a balance between inputs from instrumentation manufacturers and users (general interest public).

Dave Seabury: Safety perspective: could we add item for site surveys, OSHA

Elya: Will check inputs from an expert in Israel who is mapping EM in Israel. Invite other members.

John Lepore: Readability, simplify

Suggest: propose a new structure??

Bill Strauss: Expand definitions

Elya: Must have a good structure for next meeting

Bill Strauss: propose a goal to review document and be ready to discuss/outline. **Action for all: review document.**

Kimball: Test planning, use reference? **Action: Kim to review para 4.0 and suggest a guideline**

Bill Croissant: What is the difference between a standard and recommended practice.

Elya: Will check a formal reply.
Discussions: imply that we are working on a "recommended practice," not a standard.

- Modeling site EM rather than measurements, perhaps consider a recommended practice of modeling EM at sites

Examples of items to address:

- Proposed analysis/spreadsheet for interpreting data
- Measurement uncertainty
- Inventory management

Elya: **Action to check requirements for measurement uncertainty**

Elya: Recommend using manual strikeout of changes, use "rtf" formats.

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| 7. | Assign tasks to Committee members..... | Elya Joffe |
| 7.1 | Web page/bulletin board set-up | Elya Joffe |
| 7.2 | Review of current standard by all, recommend macro changes, and adopt sections for prime responsibility | All |

- 8. Other Business..... Elya Joffe
 - a. Need a Secretary
 - b. Need an Editor
 - c. Need more members
- 9. Summary of Action Items Vil Arafiles
 - a. Obtain PDF copy of standard/newsletter article/PAR and P&P and send copies to all Elya Joffe
 - b. Provide formal definition of "standard", "recommended practice"
 - c. Action to check requirements for measurement uncertainty
 - d. Check policy on public web page/private bulletin board
 - e. Finalize next meeting date with Std Development Committee
 - f. Review para 4 and suggest guidelines Kimball
 - g. Review current standard, recommend macro changes, and adopt sections for prime responsibility by October 15. All
- 10. Discussion on time and place of next meeting Elya Joffe
 Feb 15, 2001, **probably**, at Tempe, Az (Full Day)
- 11. Adjourn